

IN THE CLAIMS

Listing of Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

Claim 1 (amended): An apparatus for training an animal in which an audible and a variable level electrical stimulation is applied to the animal, said apparatus comprising:

a transmitting unit sending a coded signal having an identification code, a stimulation type code, and a stimulation level code, said stimulation type code including a beep code and a shock code; and

a receiver unit including

a receiver responsive to said coded signal from said transmitting unit;

a processor for decoding said coded signal;

a speaker producing a beep in response to said beep code, said speaker controlled by said processor;

a switch array controlled by said processor in response to said shock code, said processor controlling a plurality of pulse streams applied to said switch array, a number of said plurality of pulse streams related to a value of said stimulation level code;

a transformer electrically connected to said switch array, said transformer producing an output pulse having a pulse voltage related to said number of said plurality of pulse streams applied to said switch array; and

at least one electrode electrically connected to said transformer and located proximal the animal;

whereby said animal is stimulated by said electrode when said electrode is energized by said transformer.

Claim 2 (original): The apparatus of Claim 1 wherein each of said plurality of pulse streams has a fixed pulse width, a fixed pulse frequency, and a fixed amplitude.

Claim 3 (original): The apparatus of Claim 1 wherein said processor has a plurality of output connections that connect to a plurality of switches forming said switch array, each of said plurality of switches forcing a specified current through said transformer.

Claim 4 (original): The apparatus of Claim 1 wherein said processor monitors said receiver for said coded signal, verifies said identification code, determines whether a beep is to be generated, determines whether a shock is to be generated, and generates said plurality of pulse streams.

Claim 5 (original): The apparatus of Claim 1 wherein said transmitting unit includes a beep switch, a shock switch, and a stimulation level switch.

Claim 6 (original): An apparatus for training an animal in which a variable level electrical stimulation is applied to the animal, said apparatus comprising:

a processor that monitors for a coded signal, verifies an identification code in said coded signal, determines whether an electrical stimulation is to be generated, and generates a plurality of pulse streams;

a switch array controlled by said processor, said processor controlling a number of said plurality of pulse streams applied to said switch array;

a transformer electrically connected to said switch array, said transformer producing an output pulse having a pulse voltage related to number of said plurality of pulse streams applied to said switch array; and

at least one electrode electrically connected to said transformer and located proximal the animal;

whereby said animal is stimulated by said electrode when said electrode is energized by said transformer.

Claim 7 (original): The apparatus of Claim 6 wherein said processor determines whether a beep is to be generated and further including a speaker producing a beep, said speaker controlled by said processor.

Claim 8 (original): An apparatus for training an animal in which a variable level electrical stimulation is applied to the animal, said apparatus comprising:

a processor that monitors said receiver for a coded signal, verifies an identification code in said coded signal, determines whether an electrical stimulation is to be generated, and generates a plurality of pulse streams; and

a means for producing an electrical stimulation based on an output of said processor.

Claim 9 (original): The apparatus of Claim 8 wherein said means for producing said electrical stimulation includes varying a current flowing through a transformer.

Claim 10 (original): The apparatus of Claim 8 wherein said processor determines whether a beep is to be generated and further including a speaker producing a beep and further including a means for producing a beep.

Claim 11 (original): An apparatus for training an animal in which a variable level electrical stimulation is applied to the animal, said apparatus comprising:

a means for receiving a coded signal;

a means for decoding said coded signal; and

a means for producing an electrical stimulation based on said coded signal.

Claim 12 (original): The apparatus of Claim 11 wherein said means for producing said electrical stimulation includes varying a current flowing through a transformer.

Claim 13 (original): The apparatus of Claim 11 further including a means for producing a beep.

Claim 14 (original): In an apparatus for training an animal in which a variable level electrical stimulation is applied to the animal, a memory medium comprising software programmed to provide for controlling the stimulation applied to the animal by a process comprising:

a) receiving an electronic signal representing a request message to stimulate the animal, said request message including an identification code, and a stimulation level code;

b) determining whether an electrical stimulation is to be generated to stimulate the animal;

c) generating at least one pulse stream; and

d) outputting said least one pulse stream to produce a signal having a current corresponding to said stimulation level code.

Claim 15 (original): The method of Claim 14 further including verifying said coded signal from said identification code.

Claim 16 (original): The apparatus of Claim 14 further including:

e) determining whether a beep is to be generated to stimulate the animal; and

f) generating a control signal for operating a sound generating device;

Claim 17 (original): A method for training an animal in which an audible and a variable level electrical stimulation is applied to the animal, said method comprising:

a) monitoring for a coded signal representing a request message to stimulate the animal, said coded signal including an identification code and a stimulation level code;

b) determining whether an electrical stimulation is requested;

c) producing said electrical stimulation if requested, said electrical stimulation based on a current level corresponding to said stimulation level code.

Claim 18 (original): The method of Claim 17 further including verifying said coded signal from said identification code.

Claim 19 (original): The method of Claim 17 further including the steps of:

d) determining whether an audible stimulation is requested; and

e) producing said audible stimulation if requested.

Claim 20 (original): The method of Claim 17 wherein said step of producing said electrical stimulation includes:

c1) determining said current level corresponding to said stimulation level code;

c2) generating at least one input pulse stream having a fixed pulse width, a fixed frequency, and a fixed pulse voltage;

c3) applying at least one input pulse stream to a switch array to produce said current level in a pulse transformer; and

c4) producing a stimulation pulse stream from said at least one input pulse stream.

Claim 21 (original): A method for training an animal in which a variable level electrical stimulation is applied to the animal, said method comprising:

a) monitoring for a coded signal representing a request message to stimulate the animal, said coded signal including an identification code and a stimulation level code;

b) determining whether an electrical stimulation is requested; and

c) if said electrical stimulation is requested:

c1) determining a number of pulse streams to be applied to a switch array to produce a current corresponding to said stimulation level code;

c2) generating said number of pulse streams having a fixed pulse width, a fixed frequency, and a fixed pulse voltage;

c3) generating a current from said number of pulse streams;

c4) generating an output pulse stream from said current; and

c5) making said output pulse stream available to the animal.

Claim 22 (original): The method of Claim 21 further including the steps of:

d) determining whether an audible stimulation is requested; and

e) producing said audible stimulation if requested; and

Claim 23 (original): The method of Claim 21 further including a step of verifying said coded signal from said identification code.

Claim 24 (original): The method of Claim 21 wherein said coded signal includes a stimulation type code.

Claim 25 (original): A method for training an animal in which a variable level electrical stimulation is applied to the animal, said method comprising:

a) monitoring a receiver for a coded signal representing a request message to stimulate the animal, said coded signal including an identification code and a stimulation level code; and

b) if an electrical stimulation is requested by said coded signal:

b1) determining a current corresponding to said stimulation level code;

b2) generating said current from at least one input pulse stream having a fixed pulse width, a fixed frequency, and a fixed pulse voltage;

b3) applying said current to a transformer to generate an output pulse stream from said input pulse stream; and

b4) making said output pulse stream available to the animal.

Claim 26 (original): The method of Claim 25 further including the step of:

c) controlling an audible device if an audible stimulation is requested by said coded signal.

Claim 27 (original): The method of Claim 25 wherein said coded signal includes a stimulation type code.

Claim 28 (original): The method of Claim 25 further including a step of verifying said coded signal from said identification code.